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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/889,942	10/15/2001	Yrjo Leppanen	6009-4611	4597

7590 04/28/2003  
Morgan & Finnegan  
345 Park Avenue  
New York, NY 10154

EXAMINER

KASTLER, SCOTT R

ART UNIT PAPER NUMBER

1742

DATE MAILED: 04/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/889,942	Applicant(s) LEPPANEN ET AL. <i>ge</i>	
	Examiner Scott Kastler	Art Unit 1742	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
     If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some    c) ☐ None of:  
         1. ☐ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
         3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
     \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
     a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

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***Claim Objections***

Claim 6 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The above claim does not fairly further limit independent apparatus claim 5 because it has been well settled that the method of manufacture of the element (the use of shaped pieces placed in the casting mold employed to produce the claimed cooling element recited in claim 6) cannot be relied upon to fairly limit claims to the apparatus itself. See MPEP 2114.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 5 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by GB'532.

GB'532, in claim 6 for example, teaches a cooling element formed in a mold (cast) including a cast in tube of a copper-nickel alloy, thereby showing all aspects of the above claims since the method of manufacture of the element (the use of shaped pieces placed in the casting mold employed to produce the claimed cooling element recited in claim 6) cannot be relied upon to fairly limit claims to the apparatus itself.

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Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Duchneoy et al. Duchenoy et al teaches a casting mold (fig.1 for example) including a base (1), walls and end plates (4,5,6,7) made of copper (see col. 4 lines 50-57 for example), cooling pipes (8) and a graphite lining plate (which also meets the broad requirement of a "shaped" piece to be placed on the base of the casting mold)(2) placed on the base (1) of the casting mold where as stated in the instant specification at page 2 for example, the graphite plate will inherently attach itself to the copper plates by underpressure (see lines 20-25 for example), thereby showing all aspects of the above claims, since the manner or method of use of the claimed mold (for producing copper cooling elements) cannot be relied upon to fairly further limit claims to the apparatus itself. See *In re Casey*, 152 USPQ 235, and MPEP 2114.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB'645 in view of Hudd. GB'645 teaches, at page 4 lines 20-27 for example, that when casting copper cooling elements, it was known in the art at the time the invention was made to employ chill

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molds for the casting of the cooling elements, where the molds would have a base, walls and end plates, thereby showing all aspects of the above claims except the use of copper (rather than the cast-iron of GB'645) mold walls, cooling pipes or a graphite lining plates. Hudd teaches that when casting copper components, chill molds (shown in figure 1 for example) comprising copper plates or blocks (1) lined with graphite plates (2) and cooled with cooling pipes (4) provide improved durability and service life to the mold when compared to other types of copper casting molds (see col. 2 lines 23-55 for example). Because improved durability and increased service life would also be desirable in the chill mold designed for copper casting described in GB'645, motivation to employ the chill mold materials described in Hudd when constructing the mold described by GB'645, in order to increase service life of the mold, would have been a modification obvious to one of ordinary skill in the art at the time the invention was made.

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Both of Stein and MacRae are also cited as further examples of prior art copper cooling elements.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Kastler whose telephone number is (703) 308-2506. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (703) 308-3050. The fax phone numbers for the

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organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.



Scott Kastler  
Primary Examiner  
Art Unit 1742

sk  
April 24, 2003